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Remarks:

Regarding the Office Action:

The undersigned notes that at the 2nd page of the Office Action, the Examiner had noted that:

Disposition of Claims

- 4) Claim(s) 1,3-14 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 1,3-14 and 26 is/are allowed.

However, in light of the detailed remarks and cited grounds of rejections in the following pages of the Office Action it is believed that the above "Disposition of Claims" was a typographical error, and will be treated as such.

Amendments to the claims:

Claims 1, 3-14 and 26 are pending in this application. By this Amendment, claim 1 is amended. No new matter is added to the application by this Amendment. Support for the amended claims are found in the applicant's specification.

Regarding the rejection of claims 1, 3-10, 13-14 and 26 under 35 USC 103(a) as allegedly obvious over U.S. Patent No. 5382377 to Raehse et al. (hereinafter "Raehse") in view of U.S. Patent 6770609 to Morrison (hereinafter "Morrison"):

Applicants traverse the Examiner's rejection of the foregoing claims as allegedly being anticipated by Raehse in view of Morrison..

Prior to discussing the merits of the Examiner's position, the undersigned reminds the Examiner that the determination of obviousness under §103(a) requires consideration of the factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1 [148 USPQ 459] (1966): (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the pertinent art; and (4) secondary considerations, if any, of nonobviousness. More recently in *KSR International Co. v.*

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Teleflex Inc., 82 USPQ2d 1385 (U.S. 2007), the Supreme Court held that The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that "[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396. Exemplary rationales that may support a conclusion of obviousness include:

- (A) Combining prior art elements according to known methods to yield predictable results;
- (B) Simple substitution of one known element for another to obtain predictable results;
- (C) Use of known technique to improve similar devices (methods, or products) in the same way;
- (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- (E) "Obvious to try" - choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;
- (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. See MPEP 2141 (III).

It must also be shown that one having ordinary skill in the art would reasonably have expected any proposed changes to a prior art reference would have been successful. *Amgen, Inc. v. Chugai Pharmaceutical Co.*, 927 F.2d 1200, 1207, 18 USPQ2d 1016, 1022 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894, 903-04, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988); *In re Clinton*, 527 F.2d 1226, 1228, 188 USPQ 365, 367 (CCPA 1976).

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"Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure." *In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988).

Reference is made to the newly amended claim 1 presented in this paper and the new limitations introduced therein. The applicant points out that in certain preferred embodiments, an important technical feature of the applicant's invention is disclosed in the following passages from applicants' (published) specification:

~~~~~  
[0047] It is also stated in each aspect of the present invention that the one or more strands are separated into tablets shortly after their extrusion, as-extruded or after post-extrusion enhancement. In experimental work we have found that simply by extruding and cutting, tablets of good quality are obtained, having an outer skin or shell of smooth or glassy appearance, and a core which, when the tablets are broken into two pieces, has the appearance of a consolidated particulate material. This is a good structure because the tablet's external appearance is of a type which has consumer acceptance, and may be low dusting, pleasant to handle and "finished-looking", whereas the granularity of the core may aid good break-up and dissolution in wash water.

As well later wherein it stated:

strand advances onto a cooled metal conveyor belt.

[0065] Preferably the or each strand is separated into tablets, during the manufacture.

~~[0066] Although the tablets are conveniently separated by~~

and:

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[0070] Preferably the tablets weigh at least 10 g, and more preferably at least 15 g.

[0071] Preferably the tablets weigh up to 60 g, more preferably not more than 45 g, most preferably not more than 40 g. However if the tablets are in the form of a stick or rail, which is intended to last through several washes of a ware-washing machine, they may weigh up to 300 g, preferably up to 150 g.

[0072] Preferably the volume of each tablet is at least 8 cm<sup>3</sup>, more preferably at least 12 cm<sup>3</sup>.

[0073] Preferably the volume of each tablet does not exceed 40 cm<sup>3</sup>, and more preferably does not exceed 35 cm<sup>3</sup>. However in the case of tablets intended to last through several washes of a ware-washing machine, for example tablets in the form of a stick or rail, they may have a larger volume. The volume of such tablets may suitably be up to 250 cm<sup>3</sup>, preferably up to 120 cm<sup>3</sup>.

[0074] The definitions of weight and volume given above refer to a final tablet, as-extruded or after post-extrusion enhancement, as applicable. If the post-extrusion enhancement adds weight, the values include the weight of the additional material.

Such is not disclosed, nor suggested by Raehse either considered individually or jointly with the Morrison reference. Raehse is clearly directed to processes used to form a "premix" of constituents which are passed through a low-shear extruder to form "granules having a substantially uniformly predetermined particle size". Such is recited in the following excerpt from column 5 of Raehse:

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In one preferred embodiment, the free-flowing premix is preferably delivered continuously to a twin-screw kneader (extruder) of which the housing and the extruder/granulation head are heated to the predetermined extrusion temperature, for example in the range from 40° to 60° C. Under the shearing effect of the extruder screws, the premix is compacted under pressures of 50 to 200 bar and, more particularly, under pressures of 80 to 180 bar, plasticized, extruded in the form of thin strands through the perforated die in the extruder head and, finally, the extrudate is size-reduced by means of a rotating blade, preferably to spherical or cylindrical granules. The bore diameter in the perforated die and the length to which the strands are cut are adapted to the particular size selected for the granules. In this embodiment, it is possible to produce granules having a substantially uniformly predetermined particle size. Absolute particle sizes may lie, for example, in the range from a few tenths of a millimeter to a few centimeters, i.e. for example in the range from about 0.3 mm to 1-2 cm. However, particle diameters of up to at most 0.8 cm, for example in the range from 0.5 to 5 mm and, more particularly, in the range from about 0.8 to 3 mm, are preferred. The length-to-diameter ratio of the primary granules is preferably in the range from about 1:1 to about 3:1.

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However this process does not lead to a portioned detergent tablet which is ready to use by a consumer as Raehse does later specifically teach that his "compacted particulates" themselves are later mixed with additional materials to form a tabletting premix which is subsequently ultimately compacted to form the final form of Raehse's tablets. It is only after forming the "granules" from his premix composition does Raehse engage in a successive process (or processes) which form the "granules" into portioned detergent tablets which are then ready to use by a consumer. Raeshe recites, at col. 2 of his specification that:

In a first embodiment, therefore, the present invention relates to a process for the production of detergents in the form of portioned pressings, compacted granules being converted into these portioned pressings. The production of the "compacted granules" used in accor-

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and later, at col. 7 Raehse lauds the benefits of his granulation process in that prior to forming a final portioned detergent tablet by a subsequent compaction step, mixtures of different granules having different compositions may be combined prior to subsequent compaction to form Raehse's tablets.

One particularly important embodiment of the invention is characterized by the use of granule systems 30 which represent a combination of compacted granules differing in their composition. It is possible in this way to combine potentially reactive or at least only low-compatibility components in storable form. Selected and, in particular, compatible components are converted into the compacted granules and are then combined with other compacted granules before formation of the portioned pressings without any danger of unwanted reactions occurring during the storage and marketing of the pressings. One example of this are typical 40 laundry detergents which, in the new form, use at least two types of granules in admixture with one another. In

With regard to the actual pressing step of his "granules", Raehse teaches at col. 8 that:

- 5 It has been found that the compacted granules or mixtures of which at least 60% by weight consist of the compacted granules can be exposed to considerable pressures in the final portioning step without destruction of the structure of the compacted granules which
- 10 would undesirably reduce the impact strength and breaking strength of the portioned pressings. The pressure applied in the portioning step is preferably in the range from 1 to 300 bar (10 to 3000N/cm<sup>2</sup>), advantageously in the range from 5 to 200 bar (50 to
- 15 2000N/cm<sup>2</sup>) and, more particularly, in the range from 10 to 150 bar (100 to 1500N/cm<sup>2</sup>). Normally, the pressing conditions have to be optimized in each individual case for adjustment of the desired solubility of the portioned pressing coupled with sufficient strength or
- 20 hardness thereof. It is well known in this connection that relatively high pressures reduce the rate at which the pressing dissolves in water. Preferred pressings have a breaking strength of at least 55N and, more particularly, in the range from 60 to 120N.

and,

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The granules or granule mixtures are normally pressed at room temperature or, at best, moderately elevated temperatures, for example at temperatures of 40 up to about 50° C. Pressing is preferably carried out at room temperature, i.e. at around 18° to 30° C. The duration of the pressing step is determined by the particular type of machine used and is generally less than 1 minute and normally of the order of a few seconds or even less.

as well as thereafter at col. 9, Raehse also states:

The portioned pressings may be in the form of separate individual elements corresponding to a predetermined dose of the detergent. However, it is also possible to produce pressings which combine several such dose units in a single pressing, each individual portioned unit being made easy to break off, more particularly by predetermined weakened points. For the use of laundry detergents in machines of the type typically used in Europe with a horizontally mounted drum, the portioned pressings are best made in the form of cylindrical or square tablets, preferably with a length-to-diameter ratio of from about 0.5:2 to 2:0.5. Commercially available hydraulic presses, eccentric presses or rotary-table presses are suitable machines, more particularly for the production of pressings such as these. 5 10 15

This is further borne out by Raehse's Examples 1 – 5 wherein his extrudate is formed by compression through a head die with 1.5 mm sized holes, which strands are cut. Thereafter these "compacted particles" are collected, and added as a feedstock with a further premix, which only subsequently pressed into the "portioned tablets" of the Raehse process. The protocol of Example 1 was used in the formation of Raehse's tablets of his Examples 1 – 5, and as recited in the following excerpt:

10 (Marumerizer) before subsequent drying in the fluidized bed. The thoroughly mixed paste was then pressed in a hydraulic press (manufacturer: Kürschner, Federal Republic of Germany) under pressures of from about 10 to 100 bar to form portioned tablets. Particulars of Examples 1 to 3 are given in the following. 15

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in each instance, a commercially available hydraulic press was used to form the portioned tablets from the "granules".

It is thus contended that Raehse fails to both anticipate, or to render the applicant's presently claimed invention as being obvious, as in all instances Raehse clearly requires, at least a two step process a first process for forming a premix of constituents into "granules", which are next used as a feedstock in a subsequent "pressing" step to form individual "portioned pressings" (detergent doses,) which "pressing step" is performed utilizing known-art commercially available presses.

In summary then:

I.1) Raehse does not teach a consumer acceptable tablet which is formed by extrusion and cutting, absent a further step of mixing Rahse's extruded "compacted particles" with further constituents, and only thereafter compressing/tabletting, thus,

I.2) Raehse additionally does not teach a tablet formed by:

- (a) extrusion + cutting; and/or
- (b) coextrusion + cutting; and/or
- (c) extrusion + post-extrusion enhancement (e.g., laying a separate formed insert body onto or into a surface of a strand; deposit a "pill" onto or into the strand; partially or wholly coating the strand with a settable liquid composition; twisting the strands; twisting two different strands together.

A skilled artisan, considering Raehse, would only be "taught" a method of forming a premixture or feedstock, which at best is a comminuted 'intermediate' "particles" of Raehse's process, and as an 'intermediate' Raehse would not form a final product without his subsequent "pressing" step.

The further consideration of Morrison fails to address and cure the foregoing shortcomings of the Raehse reference, and thus does not render the applicant's claimed

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invention as being obvious over these combined references. Morrison, at best, only suggests the utility of "reflecting", "light reflecting" or "visible light reflecting" particles in a granular detergent composition. However, Morrison does not address nor cure the shortcomings of the Raehse reference discussed above. At best, any joint consideration of Raehse with Morrison would, at most, suggest Morrison's "reflecting", "light reflecting" or "visible light reflecting" particles as possible constituents in Raehse's "granules".

In view of the foregoing remarks, reconsideration of the propriety of the rejection of the indicated claims in view of the combined Raehse and Morrison references, and withdrawal of the rejections is solicited.

*Regarding the rejection of claims 11 and 12 under 35 USC 103(a) in view of U.S. Patent No. 5382377 to Raehse et al. (hereinafter "Raehse") in view of U.S. Patent 6770609 to Morrison (hereinafter "Morrison"), in further view of US 2002/0015730 to Hoffmann, et al. (hereinafter "Hoffmann"):*

The applicant traverses the Examiner's rejection of claims 11 and 12 as allegedly being obvious over the combined Raehse, Morrison and now Hoffmann references.

For the sake of brevity, the applicant herein incorporates by reference the prior remarks entered in this paper concerning the combined Raehse and Morrison references as being similarly relevant to the present grounds of rejection. The applicant submits that the additional consideration of Hoffman does not "cure" the inherent and fatal shortcomings of the Raehse reference and this does not render the indicated claims as being obvious over the three combined prior art references.

At the outset the applicant contests the Examiner's consideration of the Hoffman reference as being relevant to the currently claimed invention. First, Hoffman is directed to a disparate art, that of ingestible pharmaceutical compositions which would not be considered as being particularly relevant by a skilled artisan in the production of unit

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doses of detergents. A skilled artisan concerned with detergent tablets would not seek guidance from the pharmaceutical arts.

Second, Hoffmann is silent as to the use of an extruder in any manner, but is rather directed to forming "granules" by a "melt granulation" or a "melt pelletization" process, as he summarizes:

[0066] Pursuant to the present invention, the pharmaceutical formulations of the invention can be suitably prepared by melt granulation or melt pelletization. For this purpose, for example, the mixture of active ingredient and one or more sucrose esters of fatty acids is heated with stirring in a high-speed mixer, optionally together with other inert materials. The heating can be accomplished by a heating jacket, with microwave, by radiation energy or by supplying energy by stirring. Granulation commences when the melting temperature of the sucrose ester of the fatty acids used in the mixture is reached or when the surface of the mixture softens or commences to melt. Because of the agglomeration that commences and the increase in friction associated therewith, the power increases that is taken up by the stirrer motor. As a rule, the granulation is terminated when the power uptake commences to rise exponentially. After that, the warm melt granulate is either discharged from the mixture and cooled in thin layers at room temperature or cooled with suitable cooling means (such as a cooling jacket) in the mixer, possibly with stirring. Pursuant to the invention, it is also possible to add the sucrose esters of the fatty acids in the molten state.

[0067] Surprisingly, a very narrow distribution of granulate sizes is achieved during this process. Depending on the manner, in which the process is carried out, the granulate or pellet particles have an almost rounded and smooth surface.

[0068] Likewise, it is possible to use other equipment, which can be heated, such as a fluidized bed granulator, or a rotor granulator.

[0069] The granules, so produced, can optionally be classified through a screen, possibly mixed with inert ingredients of the outer phase and, for example, pressed into tablets, or filled into capsules.

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Hoffman, in its most relevant aspects, teaches a "melt granulation" process which is used to first form "granules", which are comminuted particles, which may be used "as-is" or, a quantity of which may be collected and thereafter pressed in a subsequent tabletting step into a final (ingestible) tablet form. Thus, Hoffman is even less relevant than Raehse, and should be properly dismissed from consideration as being irrelevant.

The applicant also points out that claims 11 and 12 are dependent claims which depend from independent claim 1, which is believed to be patentable over the art of record. Thus, patentability of all dependent claims should be recognized over the art of record. In view of the foregoing, applicant urges the withdrawal of the rejection of claims 11 and 12 over the prior art of record.

Should the Examiner in charge of this application believe that telephonic communication with the undersigned would meaningfully advance the prosecution of this application, they are invited to call the undersigned at their earliest convenience.

The early issuance of a *Notice of Allowability* is solicited.

#### **PETITION FOR A TWO-MONTH EXTENSION OF TIME**

Applicants respectfully petition for a two-month extension of time in order to permit for the timely entry of this response. The Commissioner is hereby authorized to charge the fee to Deposit Account No. 14-1263 with respect to this petition.

#### **CONDITIONAL AUTHORIZATION FOR FEES**

Should any further fee be required by the Commissioner in order to permit the timely entry of this paper, the Commissioner is authorized to charge any such fee to Deposit Account No. 14-1263.

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Respectfully Submitted;

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07. June, 2010

Date:

**CERTIFICATION OF TELEFAX TRANSMISSION:**

I hereby certify that this paper and any indicated enclosures thereto is being telefax transmitted to the US Patent and Trademark Office to telefax number: 571-273-8300 on the date shown below:

Parfomak  
Andrew N. Parfomak

07. June, 2010  
Date

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